

REMARKS

Claims 1-31, 33-44, 46-57 and 59-64 are pending, claims 32, 45 and 58 have previously been canceled. By this Amendment, claims 39-64 are cancelled, claims 1, 28, 29 and 30 are amended and no new claims are added. Claims 39-64 are cancelled without prejudice or disclaimer and to advance prosecution. Applicant specifically reserves the right to prosecute the same or similar claims in future continuing applications.

Amendment to the Specification

Applicant has amended the specification to relocate the header “Summary of the Invention.” The Applicant, who initially filed the application Pro Se, inadvertently included some disclosure of the invention under the heading “Background of the Invention.”

35 U.S.C. § 103

The Board of Patent Appeals and Interferences issued a decision May 28, 2009 reversing a rejection of claim 1-4, 10, 12-20, 23, 25-26, 28-30, 33-35, 38-42, 44, 46-48, 51-55, 57, 59-61, and 64 under 35 U.S.C. § 102(b) as being anticipated by Engelson. The Board also reversed the rejection of claims 5-9, 11, 21-22, 24, 27, 31, 36, 37, 43, 49, 50, 56, 62 and 63 under 35 U.S.C. § 103(a) over Engelson.

The Board of Patent Appeals and Interferences also raised a new ground of rejection with respect to claims 1-31, 33-44, 46-57 and 59-64 citing KSR v. Teleflex as follows: “when a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement predictable variations, section 103 likely bars its patentability.”

The Board further indicated “although Engelson does not teach a catheter with a curve in a tapered section, one skilled in the art would have recognized that the soft flexible material of the tapered section 102 could easily form a curve when it is introduced into the convolutions of the neurological vasculature. Moreover, one skilled in the art would have had reason to curve the catheter at this flexible portion so that it might better penetrate these convolutions. Thus, we conclude that it would have been obvious to one skilled in the art to form a curve in the second tapered section taught by Engelson.”

By this Amendment, Applicant has amended claim 1 to recite:

A catheter adapted for use in pelvic angiographic procedures in which access to contralateral and ipsilateral branch arteries below bifurcation of the internal iliac arteries is accomplished from a single common femoral arterial puncture site, the catheter comprising:

a generally tubular structure defining only a single continuous lumen extending from a proximal end of the catheter to a distal end of the catheter;

the generally tubular structure further defining a preformed primary curve located distal to the proximal end;

the generally tubular structure further defining a first tapered section, the first tapered section being located distal to the primary curve and tapering such that the external diameter decreases from proximal to distal along the first tapered section;

the generally tubular structure further defining a preformed secondary curve located distal to the first curve and curving in a generally opposed direction to the first curve; and

wherein the first tapered section generally coincides in location with the secondary curve.

Applicant respectfully traverses the Board’s newly imposed grounds of rejection. Initially, Engelson does not disclose or suggest a catheter having a *preformed* primary curve and

a *preformed* secondary curve as now recited in claim 1. As indicated by the Board, Engelson teaches that “distal portion 102 is flexible and soft to allow deep penetration into the extraordinary convolutions of neurological vasculature without damaging the tissue walls of such lumens.” Engelson, Col. 3, lines 62-65. Contrary to the assertion of the Board, the introduction of preformed curves into the flexible and soft distal portion of Engelson would negate the benefit of the flexible soft portion of the Engelson catheter of not “damaging the tissue walls of such lumens.” Were the soft portions of the Engelson catheter to include a preformed curve those soft portions would necessarily be stiffened and would no longer be able to conform to the convolutions of the neurological vasculature without damaging the neurological vasculature. This would be expected to lead to damage to the intimal walls of the neurological vasculature and to thus negate the advantages that the Engelson reference discusses. As such, amended claim 1 is now patentable over the Engelson reference for at least this reason.

Further, the Board found that the Engelson reference does not disclose or suggest a tapered portion that coincides with the secondary curve as now recited in claim 1. The Board decision indicates on page 7 “We find that Engelson does not teach a second tapered section having a curve.”

Still further, the Engelson reference’s teaching that “distal portion 102 is flexible and soft to allow deep penetration into the extraordinary convolutions of neurological vasculature without damaging the tissue walls of such lumens” teaches away from the preformed curves as presently claimed because the preformed curves would prevent the conformation of the “flexible and soft” distal portion, as disclosed by Engelson, from conforming to the “extraordinary convolutions of the neurological vasculature.” The invention as presently claimed as a whole is not obvious in

view of Engelson. Thus, claim 1 should be patentable over Engelson for at least this additional reason.

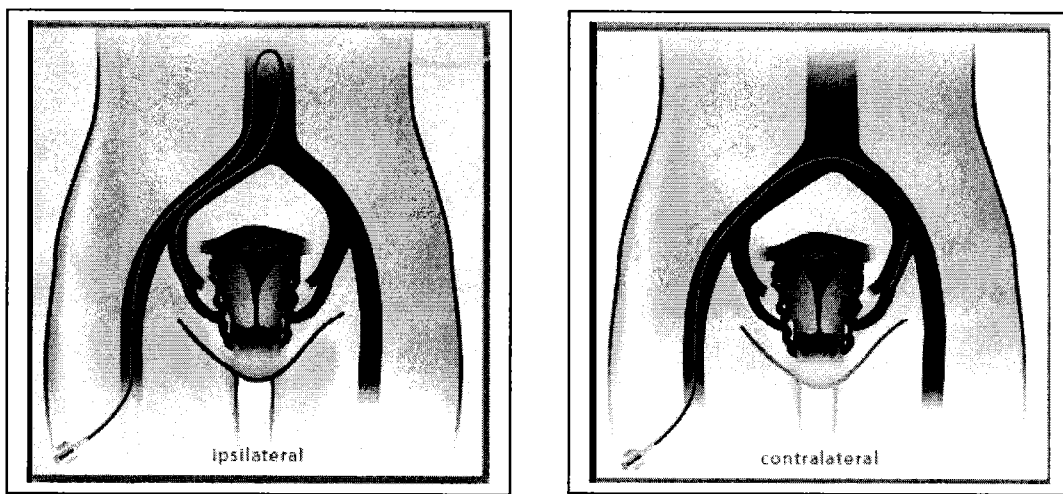
Claims 2-38 depend directly or indirectly from claim 1 and should be patentable for at least the same reasons as claim 1.

In the Examiner's answer, it was indicated that claims 5-9, 11, 21-22, 24, 27, 31, 36, 37, 43, 49, 50, 56, 62 and 63 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Engelson. To support this rejection, the Examiner cited *In re Rose*, 105 USPQ 237 and *In re Aller*, 105 USPQ 233. In particular, the Examiner indicates that discovering optimum or workable ranges involves only routine skill in the art. Even though this rejection was reversed by the board, Applicant respectfully traverses the rejection with regard to the dependent claims currently pending.

In addition to the cited language, *Aller* also indicates that "under some circumstances, changes such as these may impart patentability if the particular ranges claimed produce a new and unexpected result which is different in kind and not merely in degree from the results of the prior art." *Aller* at 235. Here, the catheter that the Applicant has invented produces a new and unexpected result to one of ordinary skill in the art. In particular, the claimed catheter permits access to both contralateral and ipsilateral branch arteries below the junction of the iliac arteries with a single catheter. As discussed in the present application, the prior art requires that multiple catheters be inserted and removed in order for a surgeon to access these branch arteries through a single vascular entry on an ipsilateral side of the patient's vascular system. The catheter as disclosed in Engelson does not present such an advantage and indeed the Engelson reference does not even discuss the issue of contralateral and ipsilateral access in the context of the iliac

arteries and the branch arteries therefrom. Engelson does not touch on the issue of contralateral and ipsilateral access even with relation to the neurological vasculature.

The illustrations below demonstrate how the catheter including the structure recited in claim 1 and the dependent claims access to uterine arteries on both sides of the body with a single catheter.



Therefore, the claims depending from claim 1 should be patentable for at least this additional reason because the specific parameters recited in the dependent claims permit the advantageous use of the inventive catheter claimed herein.

Applicant also includes with this response a copy of an article published by the inventor. The Examiner's attention is directed to the data in Table 1 that shows the author's experience with the catheter of the invention. The data presented in the article demonstrate cost saving benefits of the invention because the invention eliminates the need for the physician to use a separate microcatheter in many uterine artery embolization procedures.

Thus, dependent claims 2-38 should be patentable for at least this additional reason. Applicant respectfully requests that the Examiner withdraw the rejections.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'P. Onderick', with a long horizontal flourish extending to the right.

Paul C. Onderick
Registration No. 45,354

Customer No. 24113
Patterson, Thunte, Skaar & Christensen, P.A.
4800 IDS Center
80 South 8th Street
Minneapolis, Minnesota 55402-2100
Telephone: (612) 349-5766